Role of ultrasound in teaching Anatomy to first/ second year medical students.

Ultrasound demonstration of living anatomy has been used as a supplement in undergraduate cadaveric anatomy teaching to reinforce their anatomy knowledge and its importance in clinical practice. Ultrasound was incorporated into dissecting room session of upper/lower limb anatomy. Twenty-four first year graduate entry (A101) medical students and 121 second year (A100) medical students were included. A100 group were demonstrated with/without line diagrams whereas A101 group had the benefit of cross-sectional anatomy images along with line diagrams. Questionnaires were distributed and qualitative data was analysed using 2 proportion Z test and Fischer's exact test. 78% of A101 and 63% of A100 students found the teaching useful/essential. A101 group had statistically significant positive responses for identifying bone (91.67% versus 70%, P = 0.02), vessels (91.67% versus 54.4%, P = 0.001) & nerves (45.83% versus 12.60%, P = 0.001), finding line diagram useful/essential (95% versus 55.10%, P = 0.001) and being able to translate most/all of the structures on line diagram (61.90% versus 36.61%, P = 0.03) when compared with A100 group. Similar trend though not significant was obtained for identifying muscle (62.5% versus 51.67%, P = 0.33) & tendons (45.83% versus 31.67%, P = 0.18). Majority of students found ultrasound as a useful tool in anatomy teaching. A101 group had better results probably because they had the advantage of having cross-sectional anatomy images with line diagrams. Ultrasound could act as a useful adjunct in teaching anatomy and its relevance to medical students. It also enables them to develop skills in interpreting normal ultrasound images/machine which they will encounter in clinical medicine.